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Keith R. Haupt, Reg. No. 37,638

March 4, 2004  
Date

Serial No.: 10/765,265  
Filed: January 27, 2004  
Art Unit: Unknown  
Examiner: Unknown  
Applicant: Murray B. Blumberg and Eric R. DeBeer  
Title: BINDING OF A SHEET OF PAPER  
Conf. No.: Unknown

Cincinnati, Ohio

March 4, 2004

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

## SUBMISSION OF CERTIFIED PRIORITY DOCUMENT

Sir:

Enclosed find the certified priority document in the above-referenced application.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

By: 

Keith R. Haupt  
Reg. No. 37,638

2700 Carew Tower  
Cincinnati, Ohio 45202  
(513) 241-2324  
FAX (513) 421-7269  
khaupt@whepatent.com  
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# Sertifikaat

REPUBLIC OF SOUTH AFRICA

PATENT KANTOOR  
DEPARTEMENT VAN HANDEL  
EN NYWERHEID



# Certificate

REPUBLIEK VAN SUID-AFRIKA

PATENT OFFICE  
DEPARTMENT OF TRADE AND  
INDUSTRY

Hiermee word gesertifiseer dat  
This is to certify that

the documents annexed hereto are true copies of:

Application form P.1, provisional specification and drawings of South African  
Patent Application No. 2003/2509 as originally filed in the Republic of  
South Africa on 31 March 2003 in the name of PRESS PRODUCTS  
(PROPRIETARY) LIMITED for an invention entitled: " BINDING A SHEET OF  
PAPER ".

Geteken te  
Signed at **PRETORIA**

in die Republiek van Suid-Afrika, hierdie  
in the Republic of South Africa, this

dag van  
25<sup>th</sup> day of **February 2004**

  
.....  
Registrar of Patents

REPUBLIC OF SOUTH AFRICA  
PATENTS ACT, 1978  
APPLICATION FOR A PATENT AND  
ACKNOWLEDGEMENT OF RECEIPT  
(Section 30(1) Regulation 22)

FORM PM JULE OF SOUTH AFRICA  
(to be lodged in duplicate)

31.3.03

06000

THE GRANT OF A PATENT IS HEREBY REQUESTED BY THE UNDERMENTIONED APPLICANT  
ON THE BASIS OF THE PRESENT APPLICATION FILED IN DUPLICATE

21 01 PATENT APPLICATION NO **2003/2509**

A&A REF: V15673 AL/MJS/vd

71 FULL NAME(S) OF APPLICANT(S)

**PRESS PRODUCTS (PROPRIETARY) LIMITED**

ADDRESS(ES) OF APPLICANT(S)

Bosman Road, cnr Cross Street, Ophirton, Johannesburg,  
Gauteng Province, Republic of South Africa

54 TITLE OF INVENTION

**"BINDING A SHEET OF PAPER"**

Only the items marked with an "X" in the blocks below are applicable.

☐ THE APPLICANT CLAIMS PRIORITY AS SET OUT ON THE ACCOMPANYING FORM P.2. The earliest priority claimed is

Country:

No:

Date:

☐ THE APPLICATION IS FOR A PATENT OF ADDITION TO PATENT APPLICATION NO 

21	01
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☐ THIS APPLICATION IS A FRESH APPLICATION IN TERMS OF SECTION 37 AND BASED ON  
APPLICATION NO 

21	01
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THIS APPLICATION IS ACCOMPANIED BY:

- |                                     |   |    |    |
|-------------------------------------|---|----|----|
| <input checked="" type="checkbox"/> | A single copy of a provisional specification of <b>9</b> pages  |    |    |
| <input checked="" type="checkbox"/> | Drawings of <b>2</b> sheets   |    |    |
| <input type="checkbox"/>            | Publication particulars and abstract (Form P.8 in duplicate) (for complete only)  |    |    |
| <input type="checkbox"/>            | A copy of Figure of the drawings (if any) for the abstract (for complete only)  |    |    |
| <input type="checkbox"/>            | An assignment of invention <b>(TO FOLLOW)</b>   |    |    |
| <input type="checkbox"/>            | Certified priority document(s). (State quantity)  |    |    |
| <input type="checkbox"/>            | Translation of the priority document(s)   |    |    |
| <input type="checkbox"/>            | An assignment of priority rights  |    |    |
| <input type="checkbox"/>            | A copy of Form P.2 and the specification of RSA Patent Application No <table border="1"><tr><td>21</td><td>01</td></tr></table> | 21 | 01 |
| 21                                  | 01  |    |    |
| <input checked="" type="checkbox"/> | Form P.2 in duplicate   |    |    |
| <input type="checkbox"/>            | A declaration and power of attorney on Form P.3 <b>(TO FOLLOW)</b>  |    |    |
| <input type="checkbox"/>            | Request for ante-dating on Form P.4   |    |    |
| <input type="checkbox"/>            | Request for classification on Form P.9  |    |    |
| <input type="checkbox"/>            | Request for delay of acceptance on Form P.4   |    |    |
| <input type="checkbox"/>            | Extra copy of informal drawings (for complete only)   |    |    |

74 ADDRESS FOR SERVICE: **Adams & Adams, Pretoria**

Dated this 31st day of **March 2003**

  
**ALAN LEWIS**  
**ADAMS & ADAMS**  
**APPLICANTS PATENT ATTORNEYS**

The duplicate will be returned to the applicant's address for service as  
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PRETORIA

FORM P6

REPUBLIC OF SOUTH AFRICA  
Patents Act, 1978

## PROVISIONAL SPECIFICATION

(Section 30 (1) - Regulation 27)

21	01	OFFICIAL APPLICATION NO
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**2003/2509**

22	LODGING DATE
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31 March 2003

71	FULL NAME(S) OF APPLICANT(S)
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**PRESS PRODUCTS (PROPRIETARY) LIMITED**

72	FULL NAME(S) OF INVENTOR(S)
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1. BLUMBERG, Murray Basil
2. DE BEER, Eric Rodney

54	TITLE OF INVENTION
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**"BINDING A SHEET OF PAPER"**

**THIS INVENTION** relates to the binding of sheets of paper, in particular, calendars. More particularly, this invention relates to a method of, and an apparatus for, fastening a binding strip to a sheet of paper, such as a calendar.

According to one aspect of the invention, there is provided a method of binding a sheet of paper which includes the steps of

feeding an end of a sheet of paper to be bound into a partially folded elongate binding strip which defines a longitudinal axis and has two portions angularly disposed to each other, the end of the sheet of paper being fed in a direction parallel to the longitudinal axis of the binding strip into a region between the two portions; and

mating the end of the sheet of paper and the binding strip, with the end of the sheet of paper located in the region between the two portions.

The method may include the further step of securing the end of the sheet of paper between the two portions, by a reciprocal operation. In so doing

the binding strip may be folded and crimped, in known manner.

The method may include the prior step of locating the end of the sheet of paper at an edge of the binding strip between the portions to facilitate feeding thereof into the binding strip.

The method may include the further prior step of forming the metal strip. Thus, the method may include the steps of:

providing a length of metal workpiece;

folding the length of metal workpiece about a fold line parallel to a longitudinal axis thereof to form the binding strip having two portions angularly disposed to each other about the fold line.

The method may be continuous or intermittent.

The method may include the further step of binding an opposed end of the sheet of paper parallel to the bound end. Thus, the method may include the step of displacing the sheet of paper in the feeding direction, or parallel thereto, after the first end of the sheet of paper has been secured to the binding strip, to effect binding of the opposed end of the sheet of paper in a manner as described above.

Those skilled in the art will appreciate that the length of the sheet of paper decreases when a binding strip is secured to an end thereof. The method

may accommodate this in a suitable way. Thus, the sheet of paper may be provided with a curve, or the sheet of paper may be moved transversely, or a securing mechanism for securing the binding strip thereto may be moved back and forth.

According to another aspect of the invention, there is provided an apparatus for binding a sheet of paper, which includes:

a feed means for feeding an end of the sheet of paper to be bound into a partially folded binding strip which defines a longitudinal axis and has two portions angularly disposed about a fold line, in a direction parallel to the longitudinal axis of the binding strip; and

a reciprocal securing means for securing the metal strip to the end of the sheet of paper.

The reciprocal securing means may fold or crimp the strip, in known manner.

The apparatus may include a supply means for supplying the binding strips. The supply means may include a hopper for the binding strips.

Instead, the apparatus may include forming equipment for forming the binding strips from lengths of metal workpieces.

The apparatus may further include a displacement means for

displacing the sheet of paper after the strip has been bound thereto, in the feeding direction, or parallel thereto.

The apparatus may include guide means for keeping the sheet of paper in alignment during the binding process.

The apparatus may include a second feed means for feeding an opposed end of the sheet of paper into a further binding strip.

The apparatus may also include releasable tensioning means to facilitate binding of the opposed end of the sheet of paper by providing a curve on the sheet of paper or moving the sheet of paper transversely. Thus, when the opposed end of the sheet of paper has been fed into the binding strip and mated therewith, the tensioning means will allow the opposed end to be secured thereto whilst accommodating the decrease in length of the sheet of paper, with the already bound first end being supported without tearing of the sheet of paper.

The apparatus may further include a second displacement means for displacing the sheet of paper after the opposed end thereof has been bound. The displacement means may include an ejection mechanism.

As indicated above, the sheet of paper may be a calendar.

The invention will now be described by way of example, with



reference to the accompanying diagrammatic drawings.

In the drawings

Figure 1 is a schematic representation of an apparatus for binding a sheet of paper such as a calendar, in accordance with the invention; and

Figure 2 is schematic representation of another embodiment of an apparatus for binding a sheet of paper such as a calendar, in accordance with the invention.

Referring to the drawings, reference numeral 10 refers generally to an apparatus for binding a sheet of paper such as a calendar, in accordance with the invention. The apparatus 10 includes a station 12 for receiving a supply of sheets of paper, which in this case are calendars, a feed means (not shown) for feeding an end of a calendar to be bound from the station 12, a supply 16 in the form of a hopper for supplying binding strips, and a reciprocal securing mechanism 18 for securing the binding strip to the calendar. The apparatus 10 also includes a second feed means (also not shown) for feeding an opposed end of the calendar into a further binding strip provided by further supply means 22, a further securing mechanism 24 for securing the opposed end of the calendar into the further binding strip and a displacement or discharge station (also not shown) for discharging the calendar from the apparatus 10 once both ends thereof have been bound with the binding strips.

In use, an end 30 of a calendar 32 is fed from the supply of calendars

12 into a partially folded elongate binding strip 34 in position in the securing mechanism 18, having two portions angularly disposed to each other. The end 30 of the calendar 32 is fed into a region between the two portions in a direction shown by the arrow at 14 which direction is parallel to the longitudinal axis of the binding strip 34. The binding strip 34 is then secured to the end 30 of the calendar 32 by the securing mechanism 18. The strip 34, with an end portion of the calendar therein, is crimped and folded, in known manner, with the result that the length of the calendar 32 is shortened. It will be appreciated that the calendar 32 will move towards the securing mechanism 18 when the binding strip 34 is secured thereto.

Once the end 30 of the calendar 32 has been secured to the binding strip 34, the calendar 32, with the binding strip 34 thereon, is fed in the direction shown at 20 towards the further securing mechanism 24. A strip 36 is supplied from the hopper 22 and positioned in the securing mechanism 24 as shown such that the opposed end 38 is fed into the region between the two portions of the partially folded strip 36, in a direction shown by the arrow at 20. The strip 36 is then secured to the opposed end 38 of the calendar 32 by the securing mechanism 24 again with the result that the length of the calendar 32 with the strip 36 secured thereto is decreased.

It will be appreciated by those skilled in the art, that the securing mechanism 24 may be arranged such as to be transversely moveable in the directions shown by the arrows 40 to accommodate different lengths of calendars

32. It will be appreciated that the calendar 32 will again move towards the securing mechanism 24 when the binding strip 36 is secured thereto. Instead, the calendar 32 may be held stationary, with the securing mechanism 24 moving inwardly to accommodate the change in length of the calendar 32.

Referring to Figure 2 of the drawings, reference numeral 50 refers generally to another embodiment of the apparatus for binding a calendar in accordance with the invention. The apparatus 50 includes a supply of calendars 52, a feed means (not shown) for feeding a calendar to be bound into a looping station 56 in which a loop or curve is created in the middle of the calendar, a second feed means (also not shown) for feeding ends of the looped or curved calendar into partially folded binding strips 76 and 78 in reciprocal securing mechanisms 60 and 62, supply hoppers 64 and 66 for supplying partially folded binding strips to the securing mechanisms 60 and 62, and a displacement or discharge station (also not shown) for discharging the calendar which has been bound on both its ends with the binding strip.

In use, a calendar 70 having opposed ends 72 and 74 is fed from the supply of calendar 52 towards the looping station 56 in the direction shown by arrow 54, wherein a curve 76 is created in the calendar 70. The opposed ends 72 and 74 of the looped calendar 70 are then fed into the partially folded binding strips 78 and 80 positioned in the securing mechanisms 60 and 62. The binding strips 78 and 80 are then secured to the opposed ends 72 and 74 and the bound calendar is discharged from the apparatus. It will be appreciated by those skilled in the art,

that the curve 78 in the calendar will decrease during the securement of the binding strips 78 and 80 to the opposed ends 72 and 74.

The process is continuous such that when the binding strips 78 and 80 are being bound by the securing mechanisms 60 and 62, a new calendar is being fed into the looping station 56.

In a variation of the embodiment shown in Figure 2, the securing mechanisms 60 and 62 may comprise moveable heads, the heads being moveable backwards and forwards relative to one another. Thus, in this embodiment, the apparatus 50 may be provided with or without the looping station.

**DATED THIS 31st DAY OF MARCH 2003**

**ALAN LEWIS  
ADAMS & ADAMS  
APPLICANT'S PATENT ATTORNEYS**

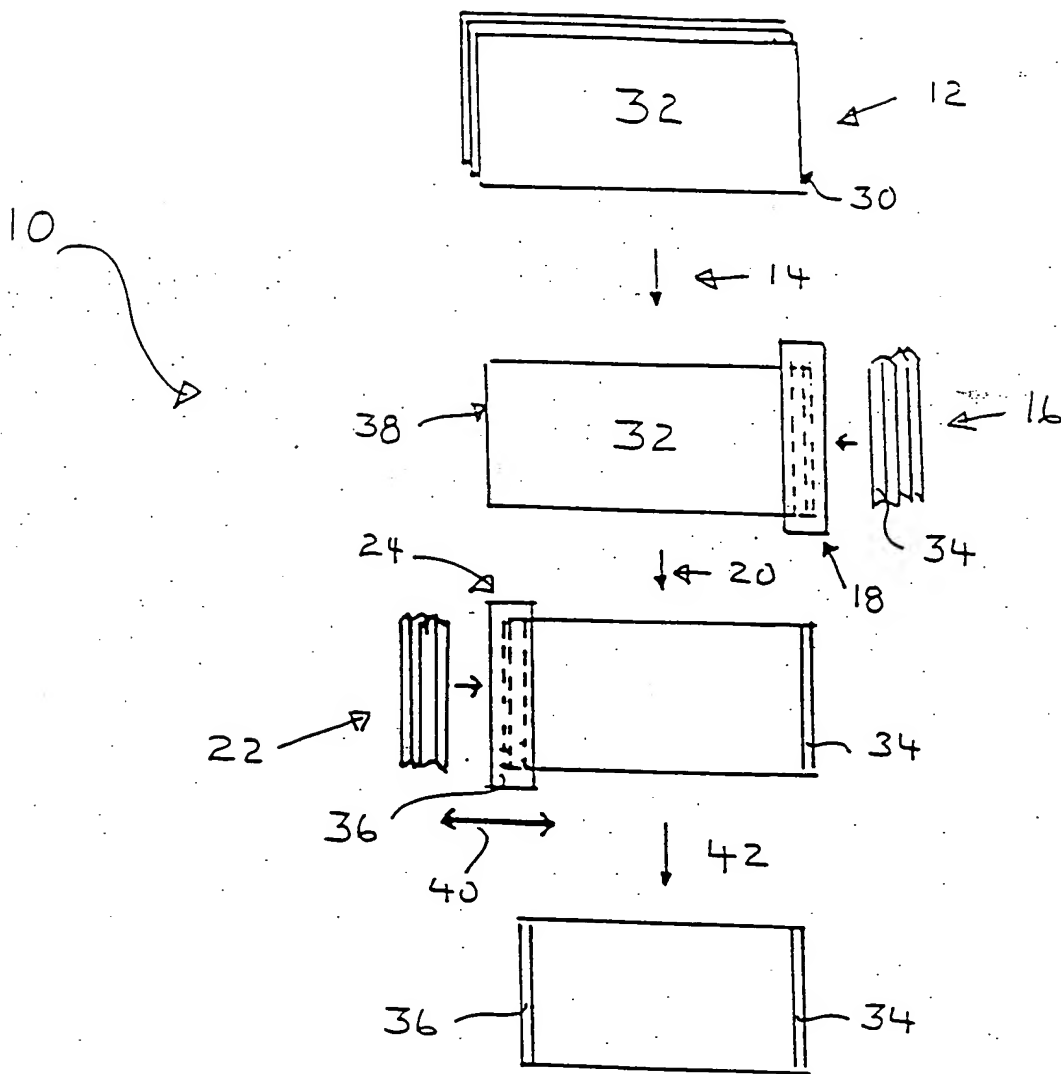


FIG. 1

ALAN LEWIS  
ADAMS & ADAMS  
APPLICANTS PATENT ATTORNEYS

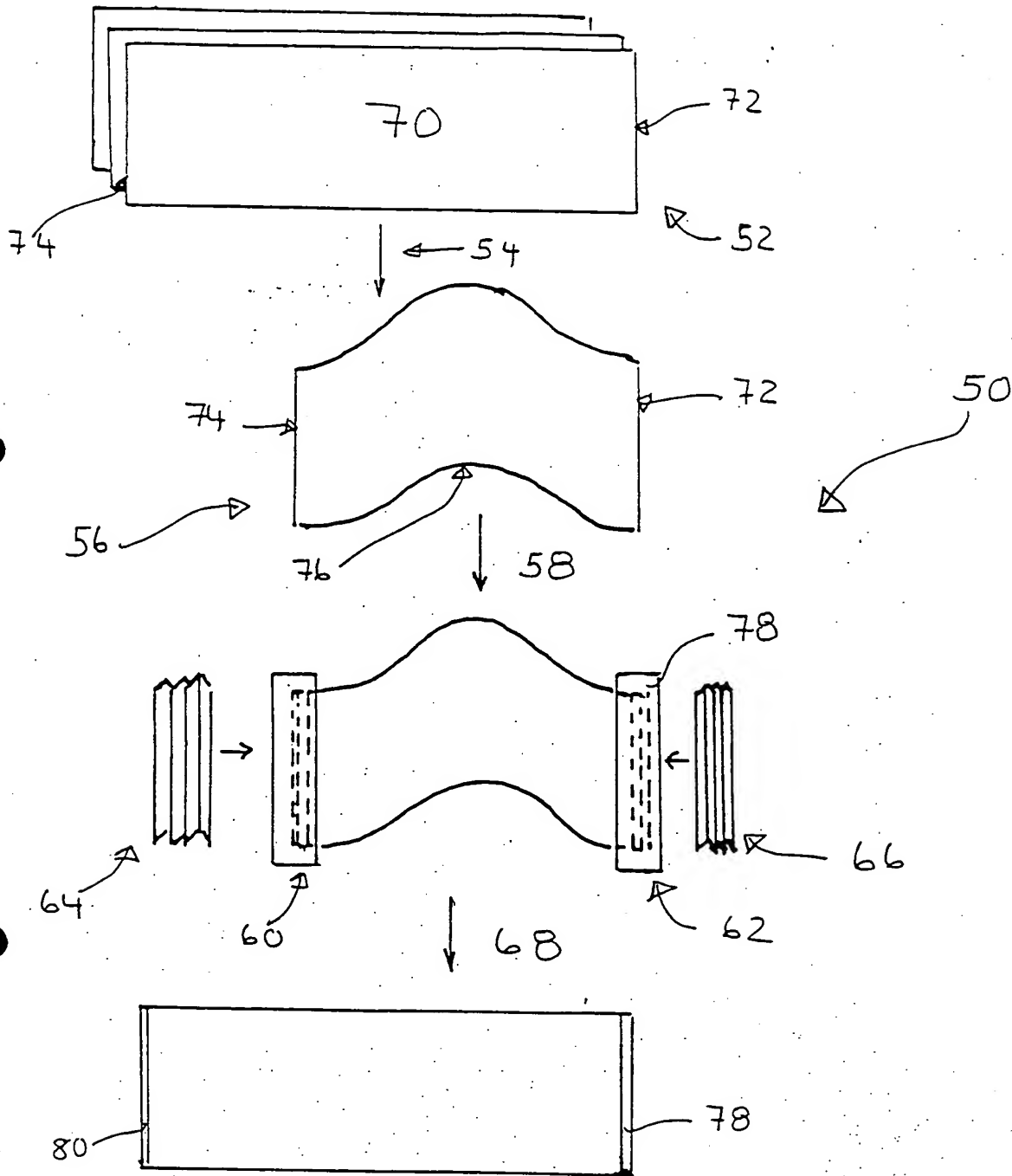


FIG. 2